

DIVISION 16 - ELECTRICAL

SECTION 16000 - GENERAL PROVISIONS

PART 1 - GENERAL

1.01 - REFERENCE

- A. The General Conditions, Division 1 through Division 15 as set forth in the foregoing pages are hereby incorporated into and become a part of the Specifications for work under this title, insofar as they apply hereto.
- B. All Specifications under this Division Title are directed to and are the responsibility of the Electrical Contractor. This Contractor shall be responsible of any electrical work required by other Drawings or Specification Divisions.

1.02 - CONTRACT DOCUMENTS

- A. The Drawings and these Specifications are complementary each to the other and what is called for by one shall be as if called for by both.
- B. Consult all Contract Documents which may affect the location of equipment, conduit and wiring and make minor adjustments in location to secure coordination.
- C. Wiring layout is schematic and exact locations shall be determined by structural and other conditions.
- D. Coordinate layout of work with other trades. Make minor adjustments in location required for coordination.
- E. The location of cameras shown on the Drawings is approximate, and the EPA's On-Site Representative shall have the right to relocate any cameras before they are installed without additional cost.

1.03 - BUILDING CODES

All work to follow:

- 1. Michigan Building Code
- 2. National Electrical Code
- 3. 'UL' Requirements
- 4. Life Safety Code

1.04 - MANUFACTURER'S DRAWINGS

- A. See Division 1 for requirements of Shop Drawings, Product Data and Samples.
- B. Submit to the EPA's On-Site Representative copies of Manufacturer's Data and Drawings for review.
- C. EPA's On-Site Representative review of Manufacturer's Drawings or Schedules shall not relieve the Contractor from responsibility for errors or omissions in Manufacturer's Drawings or schedules and deviation from Drawings or Specifications.

1.05 - JOB-SITE COPY OF DOCUMENTS

- A. Maintain at the site, in good order, one (1) copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other modifications. These shall be available to the EPA's On-Site Representative.

PART 2 - PRODUCTS

2.01 - MATERIALS

- A. All materials shall be new and undeteriorated and of a quality not less than the minimum specified.
- B. Materials and equipment for which there are Underwriters' Laboratories Standard requirements, listing and labels, shall have listing of Underwriters' Laboratories and be so labeled.

PART 3 - EXECUTION

3.01 - INSTALLATION

- A. Furnish and install all necessary hangers, supports, straps, boxes, fittings and other similar appurtenances not indicated on the Drawings but which are required for a complete and properly installed system.
- B. Clearances, when possible, shall be greater than those required by code.
- C. Working Clearances: At least 6'-3" clear headroom must be maintained in front of all electrical equipment. Provide at least 3'-0" clear space in front of all electrical equipment as wide as the equipment with a minimum of 2'-6" wide.

3.02 - WORKMANSHIP

- A. Electrical work shall meet or exceed the standards of installation and workmanship set forth in the latest edition of the National Electrical Contractors Association publication entitled NECA STANDARD OF INSTALLATION, except as otherwise modified in these Specifications or shown on the Drawings.
- B. The EPA's On-Site Representative reserves the right to direct the removal and replacement of any item which, in his opinion, does not present an orderly, neat or workmanlike appearance, provided that such item can be properly installed in an orderly way by methods usual in such work, or which does not comply with the contract drawings or these Specifications. Perform such removals or replacements when directed in writing by the EPA's On-Site Representative and at the Contractor's expense.
- C. The Electrical Contractor, insofar as the work is concerned, shall at all times keep the premises in a neat and orderly condition, and at the completion of the work shall properly clean up and haul away debris and excess materials.

3.03 - PROTECTION AND DAMAGE

- A. In addition to the provisions and stipulation of the General Conditions, each contractor and subcontractor shall provide various types of protection as follows:
 - 1. Protect finished floors from chips and cutting oil by the use of metal drip receiving pan and oil proof floor cover.
 - 2. Protect equipment and finished surfaces from welding and cutting splatters with baffles and splatter blankets.
 - 3. Protect equipment and finished surfaces from paint droppings, insulation adhesive and sizing droppings, etc. by use of drop cloths.
- B. All equipment shall be stored at the site with openings, bearings, etc., covered to exclude dust and moisture. All stockpiled pipe shall be placed on dunnage and protected from weather and from entry of foreign material.
- C. Conduit and construction openings and excavations required for Electric work shall be covered when work is not in progress as follows:

1. Cap pipe openings with fittings or plugs.
 2. Cover wall and ceiling openings with plywood, or canvas covered framing.
 3. Cover floor openings and excavations with structural material of adequate strength to support traffic.
- D. The EPA's property and the property of other Contractors shall be scrupulously respected at all times (including damage from leaks). Provide drop cloths and visqueen or similar barriers where dust and debris is generated, to protect adjacent area.
- E. Contractor shall be held responsible for damage caused by his work or through neglect of his workmen. Repairing of damaged work shall be done by Contractor as directed by the EPA's On-Site Representative. Cost of repairs shall be paid by Contractor.
- F. The EPA reserves the right to make emergency repairs as required to keep equipment in operation without voiding the Contractor's guarantee bond not relieving the contractor of his responsibilities during the bonding period.

END